

Instructions for collection and submission of specimens for Mycobacterial Examination

I. Collection kit

- A. Unit 12 (IATA Category B)
- B. 50 ml, screw cap, polypropylene tube

II. Sample collection- MDHHS will process any volume of specimen received, processing less than the minimum volume may compromise the recovery of acid-fast bacilli

- A. Sputum
 - 1. Collect a series of 3 sputum specimens, 8-24 hours apart, with at least 1 early morning specimen (specimens should be thick and contain mucoid or mucopurulent material).
 - 2. Specimens collected in the morning should be after the patient has brushed their teeth (removed dentures) and rinsed the mouth.
 - 3. Minimum volume is 3 ml, desired volume is 3-5 ml (pooled sputum specimens are unacceptable).
- B. Bronchial specimens and Tracheal aspirates
 - 1. Bronchial specimens and tracheal aspirates are collected aseptically by a physician or appropriately trained medical personnel.
 - 2. Minimum volume is 3 ml, desired volume is 3-5 ml.
- C. Gastric Lavage
 - 1. Gastric lavages are collected aseptically by a physician or appropriately trained medical personnel. Fasting, early morning specimens are recommended.
 - 2. Within 4 hours, specimens must be neutralized to a pH 6.0-8.0 using sodium bicarbonate. Specimens must be received in the laboratory within 72 hours.
 - 3. Specimens not received within 72 hours or specimens that have not been neutralized are unacceptable and will not be tested.
 - 4. Minimum volume is 3 ml, desired volume is 5-10 ml.
- D. Urine
 - 1. Collect an early morning clean-catch, midstream or catheterized specimen.
 - 2. Do not fill the container more than half full of specimen.
 - 3. Minimum volume is 10-15 ml, desired volume is 40 ml.
- E. Stool
 - 1. Collect stool specimens only for testing on immunocompromised patients. Fecal specimens are not acceptable for screening for respiratory disease due to *M. tuberculosis*.
 - 2. Minimum volume is 1 gram.
- F. Body Fluids (Pleural, Thoracentesis, Pericardial, Peritoneal, Synovial, CSF etc.)
 - 1. Body fluids are collected by a physician or appropriately trained medical personnel under aseptic conditions.
 - 2. Use a sterile syringe and transfer specimen to a sterile, leak proof container.

3. Avoid using swabs whenever possible. If a swab is necessary, it should be moistened with sterile water prior to collecting the specimen. Swabs are NOT recommended for isolation of Mycobacteria and should only be used if a specimen cannot be obtained by any other means.
4. Minimum volume is 10, desired volume is 10-15 ml, **NOTE:** CSF minimum volume is 2 ml.

G. Tissue

1. Tissue samples are collected by experienced and trained medical personnel, using aseptic technique. Avoid contamination with normal skin flora when collecting biopsies.
2. Place specimen directly into a sterile container with a few drops of sterile water or saline to prevent the tissue from drying.
3. Any size of tissue sample received is acceptable.

H. Blood / Bone Marrow

1. Collection of blood using the Isolator Lysis tube is ideal for blood cultures. Blood collected in SPS (yellow top) or heparin (green top) are also acceptable. MDHHS will also accept lysed sediment for an Isolator tube.
2. EDTA (lavender top) and coagulation tubes (blue top) are NOT recommended for testing, these anticoagulants may compromise testing.
3. Minimum volume for adults is 5 ml and 1 ml for children, desired volume is 10 ml.

III. Labeling

- A. Label the specimen container with the complete patient name and at least 1 unique identifier (For example, specimen number, medical record number, etc.).
- B. Enter the required information on the test requisition form (DCH-0583). The patient name and unique identifier on the form must be entered **exactly** the same as the information on the tube.
- C. If there are multiple specimens from the same patient, please label each specimen tube with the correct specimen number. A separate test requisition is needed for each specimen.

IV. Package and shipping

- A. Specimen should be delivered to MDHHS within 24 hours of collection. Refrigerate all specimens except Blood, Bone Marrow, CSF and tissues if delays in transportation are anticipated.
- B. Screw cap on the tube as tightly and evenly as possible to prevent leaking. Para-film® or tape the cap to secure.
- C. Insert the specimen and absorbent pad into the small plastic bag provided. Make sure it is sealed. Cushion the tube with paper toweling to prevent breaking and place in the large plastic bag with the biohazard symbol (Bio-Bag)
- D. Place the completed MDHHS test requisition in the outside pocket of the Bio-Bag. Seal the bag.
- E. Insert the Bio-Bag diagonally into the box provided so it is suspended in the middle. If necessary, add extra cushioning.
- F. Close the box and secure with sealing tape on both sides of the flap.
- G. Attach completed address label and large UN3373 label
- H. Send to the Lansing laboratory as soon as possible (e.g. courier, 1st class mail (USPS), United Parcel Service (UPS), etc.).
- I. Instructions are also available by visiting,

3. The specimen label does not match the test requisition.
- V. Packaging and shipping are the responsibility of the shipper. Please be sure it is in compliance with shipping regulations.**



Unit 12-Mycobacterial Collection kit